WHAT IS CLAIMED IS:

1. A method of raster image data processing comprising the steps of:

determining content of a page to be printed;

adaptively generating a screened bitmap output by selectively

rendering the page to be printed into a fixed pixel depth bitmap and then screening the fixed pixel depth bit map to a printer specific pixel depth, and

rendering and screening the page to be printed in an integrated manner into a bitmap having the printer specific pixel depth.

2. The method of claim 1 further comprising the steps of:

dividing a page being processed into a plurality of smaller areas; and

said step of adaptively generating a screened bitmap output for each area determined by content of said areas.

3. The method of claim 2 wherein:

said step of adaptively generating a screened bitmap output is performed in an integrated manner if an area of the page is primarily comprised of graphic and font elements.

4. The method of claim 2 wherein:

said step of adaptively generating a screened bitmap output is preformed by rendering at a higher resolution a non-screened bitmap, then screening said non-screened bitmap to

implement the desired screening function if an area of the page is primarily comprised of continuous tone elements.

5. A data processing system comprising:

an I/O controller for receiving a page description language representation of a page to be processed;

a page description language interpreter for executing said page description language representation of said page and generating a display list representation of said page;

a rendering engine having a first mode for converting said display list representation of said page into an 8-bit bitmap representation and a second mode for converting said display list representation of said page into a lower resolution screened representation;

a screening system operable on the bitmap generated by said rendering engine for generating a screened bitmap; and

a decision system selecting said first mode or said second mode dependent upon content of an area being printed.

6. The data processing system of claim 5 wherein:

said screening system is integrated into said rendering engine for generating a final screened bitmap output.

7. The data processing system of claim 5 wherein:

said screening system is implemented as a separate function that operates on the output of said rendering engine.

8. The data processing system of claim 7 wherein:

said rendering engine and said screening system are integrated but operate in a serial manner first rendering a higher resolution bitmap then screening said bitmap.